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# **The Role of Managers in Enacting Two-Step Institutional Work for Radical Innovation in Professional Organizations**

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## **Bios**

Giovanni Radaelli is Assistant Professor of Operations Management at Warwick Business School. His main research interests relate to radical change and knowledge mobilization in professionalized contexts. Most recently, Giovanni has studied the redesign and integration of mental health services in the NHS. His work has been published in leading journals, such as *International Journal of Management Reviews*, *Journal of Operations and Production Management*, *Journal of Business Ethics* and *British Journal of Management*.

Graeme Currie is Professor of Public Management at Warwick Business School, where he leads large scale funded research programs focused upon healthcare, specifically innovation, leadership, knowledge mobilization, workforce reconfiguration, strategic change. His work has been published in leading journals, such as *Academy of Management Journal*, *Journal of Management Studies*, *Organization Studies*. In a previous life, prior to becoming an academic, Graeme worked in an organization development role for the UK NHS and a major car manufacturer.

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## **Abstract**

Radical innovation in professional settings faces an institutional challenge. Professionals enjoy autonomy predicated on jurisdictional knowledge and can resist radical innovation if their interests are threatened. Our study examines if and how managers mediate professional resistance and ensure that radical innovation can take hold.

A comparative case study of 12 Italian hospitals introducing integrated service configurations shows that managers may hold back from introducing radical innovation where they judge professional resistance as insurmountable. Executives reinforce, rather than challenge, the status quo, and discourage middle managers from further actions. Where the professional context is more receptive because of micro-institutional affordances, then, managers enact different tactics. Managers may centralize decision-making through political work, which however increases professional resistance and hinder radical innovation. Managers may adopt project management approaches, which facilitate local experiments, but struggle to scale-up the radical innovation. Most successful cases are characterized by executive and middle managers enacting a two-step institutional work, which reconfigures the regulative, normative and cognitive foundations of professional boundaries and practice.

The comparative study shows how managers can support radical innovation in collaboration with professionals. In the two-step institutional work, executive and middle managers develop stable alliances with local professional groups to provide cognitive/normative foundations of radical innovation; second, they allow professionals to inhabit nascent institutional arrangements to make sense of how these fit with their prevailing interests, norms, and beliefs; third, they co-develop new structures/rules that encourage professionals to pursue radical innovation; finally, they perform maintenance work to preserve professionals' attachment to new institutions.

## **Practitioner points**

- In professional contexts, radical innovation requires changes to the regulative, normative and cognitive foundations of practice
- Radical innovation is enabled by gradual strategies of institutional work, in which professionals are given time to inhabit and experiment with new practices and boundaries
- Radical innovation is enabled by a coalition of executives, middle managers and professionals, who enact distinct types of institutional work

# **The Role of Managers in Enacting Two-Step Institutional Work for Radical Innovation in Professional Organizations**

## **Introduction**

Studies of innovation highlight the role of managers: they outline the strategic intent of innovation, facilitate adoption of new practices, grant autonomy to frontline employees to pursue radical innovation, and design appropriate incentives to stimulate creativity (O'Connor and DeMartino, 2006; Hidalgo and Albors, 2008; Poskela and Martinsuo, 2009). However, in professional organizations, the role of managers in developing and implementing innovation differs (Von Nordenflycht, 2010) since frontline employees are professionals that possess expert knowledge that is heavily regulated and inaccessible to managers. As a consequence, it is frontline professionals, not managers, that control the design and implementation of radical innovation. They may do so in a way that proves undesirable for managers. For example, because radical innovation may undermine professional boundaries and change longstanding professional practice, frontline professionals may actively work to preserve the status quo (Barczak et al., 2006; O'Connor and DeMartino, 2006; Hoegl et al., 2007; Glynn et al., 2010). Under such conditions, managers may 'only' be supporting actors, who facilitate professional decision-making (Currie and Procter, 2005; Llewellyn, 2001), or they avoid engaging professionals with anything more than incremental innovation (Fitzgerald et al., 2002; Vermeulen et al., 2007; Lewin and Reeves, 2011; Currie et al., 2012). Addressing this challenge, our study reveals how managers engage and shape the efforts of highly-expert and autonomous professionals towards radical innovation.

Theoretically, the challenge for managers in introducing radical innovation is an institutional one. Professionals defend established boundaries and practices by reinforcing the regulative, normative and cultural-cognitive arrangements in their organizations; i.e. the established rules, social expectations and logics of actions. In professional contexts, these

three arrangements consolidate into ‘institutional pillars’ (Scott, 2001) and produce stabilizing effects towards replication and reinforcement, rather than revision, of established professional boundaries and practices (Suddaby and Viale, 2011; Muzio et al., 2015). To realize radical innovation in professional organizations then, managers must act upon institutional pillars.

Extant literature tends to emphasize the top-down effect of institutional pillars upon innovation (e.g., Van Dijk et al., 2011; Yang and Wang, 2013; Shu et al., 2015). In contrast, our study draws upon the concept of ‘institutional work’: “the purposive action of individuals and organizations aimed at creating, maintaining and disrupting [regulative, normative and cognitive foundations of] institutions” (Lawrence and Suddaby, 2006; p. 216). Through focusing upon institutional work, the study asks: how do managers act upon institutional pillars through institutional work to influence professional organization towards radical innovation?

To address this research question empirically, a comparative case study of radical innovation in 12 Italian hospitals was enacted to examine the interaction of executive and middle managers with elite, high-status professionals (i.e., doctors) in the introduction of radically new integrated service reconfiguration. This dilutes professional boundaries and changes longstanding professional practice, and so exemplifies our theoretical concerns through impacting regulative, normative and cognitive institutional pillars.

This article proceeds as follows. Within the literature review, the institutional perspective is detailed by focusing on both the structures and possibilities for agency. Then, a description of the research setting and design is presented. Data are shown by clustering the empirical cases: management holding back from radical innovation (cluster 1); management organizing for innovation through centralized projects (cluster 2); management organizing for innovation through political work (cluster 3); management organizing for innovation through two-step

institutional work (cluster 4). Within the discussion, a comparative analysis is presented. Finally, in conclusion, the theoretical contribution to understanding managers' role in radical innovation within professional organizations is emphasized, practical implications outlined, and further research suggested.

### **An institutional perspective on radical innovation in professional organizations**

Institutional theory conceives professional organizations as characterized by three institutional 'pillars' (Scott, 2001), which cause actors to shy away from radical innovation. Regulative elements establish rules to which actors should conform; normative elements introduce a prescriptive and evaluative dimension in social life, representing how actors should behave appropriately; and cultural-cognitive elements relate to shared conceptions of what constitutes the social reality, and how actors should evaluate behaviors. These pillars produce stabilizing effects in the organization, aligning the behaviors of embedded actors towards the replication of enduring social structures and systems, thus engendering isomorphism and path dependence. Radical innovation emerges only when the stabilizing effects of institutionalized interests, norms and beliefs are breached.

These breaches are defined 'micro-institutional affordances', from which organizational actors become more aware and tolerant of radical changes (Van Dijk et al., 2011). Three phenomena are likely to generate breaches. First, increase in multiplicity of institutionalized interests, norms and beliefs co-existing in the organization, raises actors' awareness of a need for change (Reay and Hinings, 2009). Second, heterogeneity of organizational groups with distinct interests, norms and beliefs raises actors' awareness that radical change might appease stakeholders' demands (Zietsma and Lawrence, 2011). Third, ambiguity of institutionalized interests, norms and beliefs, raises actors' awareness that a radical change could help restore clarity (Balogun and Johnson, 2004). Micro-institutional affordances hence represent situations in which compliance to established rules and social norms, as well as the

commitment to established values, interests and belief systems, is challenged, either because their interpretation is more ambiguous or because new interests, norms and beliefs become more relevant. So, embedded actors are more tolerant of, and predisposed towards, radical change (Lawrence et al., 2013).

To take advantage of micro-institutional affordances, actors can engage in institutional work (Lawrence and Suddaby, 2006). Institutional work can maintain, create or disrupt an institutional arrangement and is classified according to whether it targets the regulative, normative or cultural-cognitive pillar. Institutional work is political work if it maintains/modifies rules, structures and property rights that define access to financial and other material resources; technical work if it maintains/modifies beliefs around what is considered appropriate behavior; cultural work if it maintains/modifies actors' attachment to institutions. Table 1 provides a summary of key forms of political, technical and cultural work enacted to support radical innovation (see columns 1 and 2).

**<<Table 1 about here>>**

Previous research in professional organizations, focused upon the interaction of professionals and managers, highlights that each actor, often in opposition, enact institutional work to maintain or revise established boundaries and practices. In institutional terms, boundaries represent demarcations between the jurisdictions of different actors, within which they can self-regulate; practices represent shared routines that inform actors' responses to specific situations (Zietsma and Lawrence, 2011).

Professionals usually have the upper hand in relation to managers because they possess expert knowledge required to develop and deliver products/services and accordingly have autonomy to choose when and how to engage with radical innovation (Abbott, 1988). Their institutional work defends this right and shapes the nature and extent of radical innovation (Suddaby and Viale, 2011; Currie et al., 2012). Professionals' institutional work revolves



around shaping inter-professional boundaries that establish how professionals are connected and practices that establish what professionals should do in their jobs (Ackroyd and Muzio, 2007). Boundaries and practices are connected in a recursive relation: boundaries delimit the sets of practices that embedded actors pursue, while practices support specific boundary arrangements (Zietsma and Lawrence, 2010). Accordingly, professionals neutralize the ‘threat’ of radical innovation by reinforcing boundaries and thus protecting their self-regulation and exclusive jurisdiction (Lounsbury and Crumley, 2007; Suddaby and Viale, 2011). In operating “boundary maintenance around the differential areas of expertise associated with their work” (Llewellyn, 2001, p. 595), professionals perform technical work and cultural work to reinforce the normative/cognitive foundations of their claims (Micelotta and Washington, 2013).

Executive managers may attempt to enact institutional work such as: ‘undermining the moral foundations’ of professionals’ autonomy; ‘theorizing’ cause-effect chains related to performance management and measurement systems; developing rules systems that change the status of marginalized organizational actors or create hierarchies (‘defining’); diverting resources and property rights across professional groups (‘vesting’); introducing auditing and monitoring mechanisms (‘policing’) (See Table 1). These attempts, however, all struggle to produce change without support from professionals (Suddaby and Viale, 2011; Currie et al., 2012; Muzio et al., 2013).

Meanwhile, middle managers face an even bleaker outlook regarding their role in radical innovation, with little evidence that they can successfully enact institutional work. Generalist (without a professional background) middle managers are not commonly characterized as institutional actors that drive radical change in professional organizations. Their role is one of a supporting cast confined to facilitating strategic change or innovation within established institutional pillars (Wooldridge et al., 2008). Thus, how executive managers and generalist

middle managers contribute to challenging institutionalized interests, norms and beliefs of professionals is unclear, as attempts to introduce radical innovation unfold. Following which, to repeat our research question: how do managers act upon institutional pillars through institutional work to influence professional organization towards radical innovation?

## **Research Design**

### ***The Empirical Case***

The study investigated the attempts of executive and middle managers in 12 Italian hospitals to enable the creation of radically new services for complex care patients. The choice of the empirical setting, Italian hospitals, is shaped by our theoretical concerns. Hospitals have long been privileged contexts to induce theory about change and innovation in professional contexts from an institutional perspective. Specifically, institutional accounts of change within hospitals highlights the significance of their underpinning institutional pillars, which renders maintenance of the status quo more likely than radical innovation taking hold (Reay et al., 2006; Currie et al., 2012). This empirical setting thus represents an extreme context from which to induce theory.

The radical innovation under investigation involved service integration. Complex care patients have multiple chronic diseases, which require long-term interventions, and access to different clinical departments. Stroke patients, for instance, access neurology, radiology, accident and emergency, physiotherapy, and nutrition departments during their treatment and follow-up. They typically encounter separate and disjointed services, since each clinical department implements a specialist, but compartmentalized approach. To allow better continuity of care, managers wanted clinical departments to create integrated services, which unite previously separate specialist services. Thus, they encouraged the development of multidisciplinary teams comprising leading doctors across different departments, to generate a single point-of-access service for patients with specific symptoms, agreeing on new

evidence-based criteria for patient referral and interventions, and defining new rules for discharge, referral, waiting lists and resource access.

As an intermediate step, managers sought to establish the use of Integrated Care Pathway (ICP) methodologies by clinical departments to stimulate and inform the radical redesign of their services. An ICP is a structured multidisciplinary plan of care that translates scientific discoveries, guidelines and evidence into new services, aiming to standardize care for a defined group of patients (Kinsman et al., 2010). The adoption of ICPs was not the radical innovation, but a methodology that hospital managers thought clinical departments could use to design new services for patients with complex care needs. ICP methods informed the creation of new care services in ‘markets’ where comparable services did not exist, and the redesign of radically new services, which required significant changes in decision-making criteria, integration of different clinical departments, and management of patient flow (Kinsman et al., 2010). This is consistent with the definition of radical innovation as “the development or application of significantly new technologies or ideas [that] are either non-existent or require dramatic behavior changes” (McDermott and Colarelli, 2002; p. 424).

The multidisciplinary teams within and across hospitals redesigned different services with an ICP methodology. In the most successful case in the dataset (i.e. Cicero), different multidisciplinary teams redesigned multiple cancer-related, cardiology, gastroenterology, ophthalmic, and neurological services. Each innovation mobilized different groups of clinicians and an evidence base, and generated different outcomes. Another hospital (i.e. Sloan) took a more focused approach and experimented with new services in relation to very rare neurological diseases. More generally, hospitals could not adopt others’ redesigns, as they were unavailable at the time of their innovation efforts; hence, they engaged in the whole process of idea generation and implementation in isolation from each other.

Three key actors were engaged with this radical innovation. First, executive managers enacted a strategic role to stimulate the creation of new services, and the integration of previously compartmentalized services. They were generalist managers, as they lacked medical expertise. Second, they were supported on the ground by generalist middle managers in the Quality Departments, reporting into executive managers, and who lacked hierarchical power over clinical departments. They also lacked medical expertise. Finally, based upon their jurisdictional knowledge, doctors controlled the creation and implementation of services. Several doctors involved were heads of clinical departments, hence combining clinical and managerial responsibilities they acted as ‘hybrid middle managers’ (Llewellyn, 2001), exerting hierarchical power over nurses, junior doctors and other clinicians.

When radical, the ICP-based service redesigns required major revisions to institutionalized interests, norms and beliefs related to boundaries and practices enacted by doctors within clinical departments. First, they challenged clinical specialism and doctors’ capacity to develop individualized care packages for patients (Adler and Kwon, 2013), by standardizing care processes and therapy and diagnosis criteria. Second, they challenged institutionalized reliance on tacit ‘mindlines’ derived from early training and socialization, where doctors draw on experiential or more intuitive knowledge in diagnosing and managing patients (Gabbay and LeMay, 2004). Now decision-making was based on more formal clinical evidence. Finally, they reshaped inter-professional boundaries, requiring experts with different roles and backgrounds to interact in multidisciplinary teams, disclosing their knowledge to others, sharing decision-making, so conceding a portion of their autonomy to peers (Lewin and Reeves, 2011).

### ***Data Gathering***

Data was collected from October 2011 to September 2012 across 12 comparative cases. Initially, within the Italian healthcare context, exploratory interviews were undertaken with

managers in 20 hospitals, identified as high-performing organizations through publicly available 'league tables' of quality of their services. Then, hospitals with comparable quality were selected, as variations in this indicator could introduce confounding explanations in our study. In this exploratory stage, within some identifiably high-performing hospitals, managers knew little about integrated service, nor had they any thoughts about its implementation, so these hospitals were excluded from further analysis. Thus 12 high-performing hospitals were identified that were active with plans for integrated services, but not necessarily committed to their implementation in the short-term. Some reported system-wide integrated care, while at the other end others reported they were not progressing integrated services in the face of potential resistance. Such varied responses aligned with our concern to explain managers' institutional work in seeking to drive reform.

Across the 12 hospitals, a comparative case study approach (Eisenhardt, 1989) was taken to examine the (re)design of complex care services according to principles of integrated care. A substantial archive of documents around the redesign of frontline services and ICP application was initially gathered. These documents provided evidence on the extent of service redesign, criteria to assess clinical outcomes, and degree of implementation. Documents relating to organizational strategies and policies for ICPs were collected along with scientific articles in national and international journals, reports on ICP development, ICP presentations for internal meetings, workshops or conferences, newsletters and leaflets on hospital intranet or websites. These documents were subjected to data analysis along with interview transcripts.

As the documentary analysis was insufficient to detail how ICPs were developed and implemented, interviews with key informants became the primary source of data. General middle managers in quality departments were first approached, as they were responsible in each of the empirical cases for supporting service redesign through ICPs, to deepen access to

the 12 in-depth cases. Following this, the main actors involved in the innovation process were identified and interviewed; i.e., executive managers (CEOs, Medical Directors, R&D Directors), general middle managers in the Quality Departments, and doctors.

The interviews took place in two phases, across the first six sites, and then followed later with interviews in a second group of six sites. One of the researchers undertaking interviews, asked about actions stimulating service redesign, the key interactions between actors as service was redesigned, and perceived factors affecting radical innovation. Following Mantere's (2008) approach, interviews were semi-structured to allow a "story-telling approach that is, to let the interviewees describe their views as freely as possible, allowing them to interpret the questions freely and pursue those themes that they regarded as central" (p. 298). In total, 60 informants in 12 hospitals were interviewed, on average for one hour. Supplementary field notes kept track of in-field observations, such as interactions between managers and doctors in departmental meetings (50 hours of observation). Table 2 provides an overview of the research phases, hospitals involved and research instruments for the various activities.

**<<Table 2 about here>>**

In the analysis, one of the researchers (conducting the fieldwork) initially coded data, while others acted as external investigators, developing theory 'from outside' through independent within-case and cross-case analyses, to reach a common theoretical understanding of institutional work enacted around radical innovation (Eisenhardt, 1989; Mantere, 2008). Triangulation across analysts was performed to identify clusters of cases, as only one of the four authors had been involved in data collection, hence the remaining authors were able to challenge and interrogate derivation of clusters by the fieldworker (Mantere et al., 2012).

In outline, in successive stages of analysis, the intention was to move from a descriptive, empirical to an interpretive, more theoretical mode of explanation for the patterns of

innovation induced across the comparative case data. The final step of the analysis involved categorization of the broader explanatory categories that were more empirically oriented into aggregated theoretical categories (types of institutional work and by whom), with consideration for how they linked to each other; e.g. how different actors' institutional work, when considered together, produced (or did not produce) a radical innovation effect (Pratt et al., 2006).

Following such analysis, the authors agreed to group the 12 cases in four clusters: (i) no management initiative: 4 cases where managers disengaged from radical innovation due to professional resistance; (ii) organizing for radical innovation through a centralized project: 4 cases where managers coordinated service redesign through the adoption of a standardized ICP format and the supervision of project teamwork; (iii) organizing for radical innovation through political work: 2 cases where managers carried out 'political work' aimed at introducing new regulations and incentives; (iv) organizing for radical innovation through cross-level institutional work: 2 cases where early adopters and managers carried out 'technical work', 'cultural work' and 'political work' to stimulate service redesign. In each cluster, cases were compared to identify common patterns, elucidating a general explanatory model and delineating differences regarding how specific factors triggered diverse outcomes. To assess the degree of 'success' in each cluster, the number of 'original' service redesigns informed by ICPs and the number of departments involved (to measure the extent of changes) were considered, along with the perceived radicalness of the ICPs and the degree of their implementation in practice (both informed by clinical informants). The cases ranged from (i) cases of zero radical service redesign attempted, with no instance of ICP adoption (i.e. Black), to one case of more than 30 service redesigns informed by ICPs, whose degree of implementation was confirmed by the institutionalization of new structures (i.e. Cicero). This analysis provided a general model explaining how variations in organizing radical innovation

through ICPs related to the roles and institutional work of executive managers, middle managers and professionals, which is outlined in Figure 1.

## **Findings**

Table 1, column 3 highlights examples of institutional work enacted in the selected cases by managers. Further detail about managers' institutional work is provided below. The combination of different institutional arrangements and institutional work led to specific outcomes for each cluster. Terms in italics within empirical sections refer to forms of institutional work enacted in the cases. Table 3 provides a summary of institutional work within each cluster. In Cluster 1 cases (column 2, Table 3), institutionalized interests, norms and values worked against radical service redesign, the latter which was generally perceived as a low priority or clinically inappropriate. There was little evidence of institutional work enacted by managers. More institutional work was enacted by professionals for maintenance purposes around institutionalized interests, norms and beliefs. Quality managers who held an interest in ICPs felt *"between a hammer and the anvil"* (Black, Quality Manager). ICP development was then left to the spontaneous efforts of professionals and remained sporadic.

*The limited involvement of executive managers is a sore point for us. We cannot get ICPs into their heads no matter how we try. For them, ICPs are not a priority and the time is not right to put the delicate equilibrium between clinical departments at risk. So, ICPs depend on doctors, who tend their own garden (Winter, Quality Manager).*

Since managers' institutional work was absent in Cluster 1, the empirical presentation will focus in the following sections upon case Clusters 2, 3 and 4, with particular detail provided about our exemplar Cluster 4 cases.

### ***Cluster 2: Organizing for radical innovation through a centralized project***

The Cluster 2 cases were also characterized by institutionalized interests, norms and beliefs preserving compartmentalized services and imbuing skepticism towards standardized care. To illustrate our theoretical analysis, our empirical presentation focuses upon the case of Green (see Table 3, Column 3, for combined analysis across Cluster 2 cases).



In Green, managers felt opposition from the ‘old guard’; i.e., senior doctors controlling key departments. The latter sought to *undermine the moral foundations* of ICPs, emphasizing the risks of standardized care; and *valorized the normative/moral foundations of current arrangements*, evidencing good clinical outcomes in so doing.

*It was difficult to negotiate change with the old guard. They were skeptical that sharing decisions would lead to better decisions. They always argue that departments lose responsibilities and become less effective. At this point there is little we could do to move forward. (Green, Quality Manager)*

At Green, two events produced micro-institutional affordances. First, the retirement of several key players in the ‘old guard’ weakened opposition to service redesign. The new ‘young guns’ looked forward to integrated care as an opportunity to improve effectiveness of care and at the same time, their own legitimacy.

*The new generation of doctors has very different training, sometimes from other hospitals. They saw ICPs and protocols with less blood in their eyes... Plus, they were filling big shoes, so they were eager to put their names on some important changes. (Green, Quality Manager)*

Second, managers in Green initiated a major hospital redesign whereby space was opened up and clinical departments co-located. The “*restructuring of the walls*” (Green, Quality Manager) was appreciated by clinical departments since the previous geographical dispersion had the downside of “*too much isolation*” (Green, Doctor). Professionals agreed that “*it was a once-in-a-lifetime opportunity*” (Green, Doctor) to improve clinical services and inter-departmental relationships. In response to this, professionals liaised with managers during the hospital reconfiguration to understand how they could revise their services. In doing so, they showed managers that they had become more tolerant of process re-engineering approaches.

*We reached breaking point, so we welcomed the relocation plans. We had to drive to any meeting. It became unbearable with our schedule. At that point, we had to change something in our services, so we asked for help from managers (Green, Doctor).*

Managers in Green became conscious that pressures to preserve the status quo had weakened. They did not pursue institutional work to revise established regulations, norms and cultural frameworks. Rather, they identified professional groups interested in ICP development, and supported them through a centralized project management approach.

Specifically: (i) middle managers identified clinical groups open to service redesign and championed these to executive managers to initiate local projects; (ii) executive managers ratified projects, assigning to middle managers the task of supporting professionals without interfering in their clinical decision-making; (iii) middle managers liaised with professionals and were allowed to participate in their multidisciplinary project teamwork as part of the “*supporting, not supervising cast*” (Green, Quality Manager), with middle managers engaging in extensive administrative work that legitimized their role. Finally, professionals, when assured that managers would not intrude upon clinical and operational decisions, undertook the necessary expert work for ICP development.

*We won over doctors with our backstage work around documentation, organizing meetings, collecting data. Doctors appreciated our efforts and told us they were glad to participate because time was well spent, meetings were organized and our data collection enabled them to focus on teamwork. (Green, Quality Manager).*

When supported by professionals, middle managers suggested the adoption of ICP formats and co-produced an in-house ICP methodology. Guided by this, professionals collected evidence to inform their decision-making, and produced illustrations of their ICP experiences for others to read. The extent to which ICP development informed radical service innovation was however questionable since professionals (i) interpreted ICP development only as a research or experimental endeavor, without altering their practices; (ii) replicated their compartmentalized decision-making in teams and hence produced ICPs which reinforced established boundaries, and produced only incremental innovation; (iii) developed radical innovation only in relatively ‘marginal’ services with few patients and resources. As a consequence, at Green, there was a need for sustained administrative work by quality managers, which cast doubt on the long-term future of ICP development.

*Nothing would work if I never show up. As soon as doctors sense weakness we are dead. But we are also proving to be reliable, so now they are calling us. We are proud of this, but also very exhausted. We wish for the next years to loosen our grip. (Green, Quality Manager)*

In summary, at Green, as with other cases in this cluster (see Table 3, Column 3), an absence of institutional work by managers left aspirations for sustaining any radical innovation unfulfilled. In Cluster 3 cases, detailed below, institutional work by managers was evident, but ineffective compared to the efforts of professionals, as detailed below.

***Cluster 3: Organizing for radical innovation through political work***

The Cluster 3 cases (Raffi and Dragan) experienced multiplicity and ambiguity of institutionalized interests that stimulated tolerance towards practice/boundary revision. The increasing promotion of multidisciplinary work from practice communities to which doctors were strongly attached, and growing interest of doctors in becoming ‘clinical leaders’ and ‘first movers’ in the field breached the stabilizing effects of institutional interests toward compartmentalized care. Hospital managers sought to exploit the receptive context with a strategy that could achieve quick results in terms of ICP development, without intruding upon clinicians’ jurisdiction. Executives and quality managers both recognized they lacked expertise and clinical authority to demand use of ICP methods to redesign clinical services. Thus they did not venture into any *technical work* that openly criticized institutionalized values and beliefs around compartmentalized care; or any *cultural work* that promoted attachment to integrated care. To encourage the redesign of services, executives, with the help of quality managers, then designed and implemented a new regime of incentives for multidisciplinary groups organizing their work through ICP methodologies. This was a soft strategy of *political work*. On the one hand, it gave more opportunities and incentives for multidisciplinary groups to emerge and reorganize their services. On the other hand, the new regulations were not rule systems that demanded radical innovation and sanctioned non-compliance.

At Raffi, executive and quality managers liaised to perform *political work*, without interacting with ‘early adopters’. First, they *constructed new identities*; i.e. introduced a new

regulation that formalized the existence of ICP groups in the organizational structure. Second, they *defined their status*; i.e. developed membership rules that clinical departments had to follow to obtain mandated status. Third, they *vested* these new entities with ad-hoc financial resources. Professionals interpreted such initiatives as managerial intrusion and circumvented strategic intent by developing ICPs that reaffirmed pre-existing clinical services.

*We had those rules in place for a year, but then removed them. Directors received quite vicious reactions from clinical leads, who argued that the rules rewarded departments for principles that had nothing to do with the actual needs or effectiveness of their work. We received a few “ICPs” [with visible quoting gestures], which basically were internal protocols patched together (Raffi, Quality Manager).*

At Dragan, quality managers sought to build momentum from one very successful ICP experience and stimulate a wider spread of the practice. They liaised with executives and engaged with *political work*, outlining an experimental regulatory regime that promised recognition and resources to professional groups providing evidence of multidisciplinary configurations of care delivery; i.e. *defining and vesting new identities*. They insisted that the ‘early adopting’ group not only promoted their ICP, but performed *theorizing work* with organizational wide programs meant to institutionalize beliefs that ICPs produce superior outcomes; and *educating work* with programs meant to provide peers with the skills and knowledge required for ICPs. Early adopters, however, promoted their experiences only temporarily and locally. They feared that further efforts would be perceived as ‘intrusion’ by other clinical departments. Managers’ reliance on *political work* in isolation from professionals again failed to yield the expected results. Most departments avoided ICP development to preserve their services, while a few pilot groups failed to develop into functioning multidisciplinary teams, because of their inexperience with ICPs.

*Managers invited us to make a hospital-wide effort to promote our model across departments. It was incompatible with our core duties; managing so many interactions with other departments was killing our own development. Plus, many kept us at arms’ length when we needed to push things. That was not worth the risk. (Dragan, Doctor)*

In both cases, the new regulations encountered negative reactions from professionals. The regulations were generated with limited interaction with professionals. Managerial efforts were perceived as unexpected “*changes of pace*” (Dragan, Doctor). Furthermore, the allocation of additional resources to ICP development struck doctors as inappropriate, considering how regular practice was suffering from a shortage of resources. Hence, doctors worked to divert the extra resources towards more traditional uses. They enacted forms of *technical work* and *cultural work* to reinforce the centrality of professionals as priority-setters, and emphasize best practices linked with more traditional, compartmentalized forms of care. These professionals *reinforced the identities* of the heads of clinical departments as central strategy-makers. Then, they *reinforced the normative foundations* of the existing best practices, highlighting how they were generated by doctors’ professionalism and by resources that required buffering against any diminution. In doing so, they *mythologized* these normative foundations, by using positive and negative experiences of care to highlight the importance of these factors, and to generate emotional attachment to them. At no point were ICP methods, multidisciplinary work practices, or integrated care innovations, demonized or deterred. In their attempt to change resource allocation, doctors engaged in *political work*, particularly in forms of *advocacy work*. Using meetings and face-to-face conversations, temporary ‘alliances’ of doctors sought to gain the support of executives. This was successful. Executives recognized organizational risks associated with the regulatory regime around ICPs. By prioritizing other goals, the stimulus to redesign care services through ICP methods died down, and was left to the spontaneous initiative of clinical departments.

*The regulation regime for ICPs was designed to avoid any imposition upon clinical departments. The new budgeting rule was optional, and not following it would not have repercussions on their practice... They argued, however, that it did have repercussions. They said: “the policymakers are cutting our funds, reimbursement money is delayed, and we need to pay attention to every penny... and you redistribute pockets of resources for ICPs? There are areas that need that money more urgently!” (Raffi, Quality Manager).*

In summary, in Cluster 3 cases, managers engaged in institutional work, but this was decoupled from professional practice. Professionals also engaged in institutional work, the effect of which was to halt the advance of ICP methodologies, and radical innovation. Only in Cluster 4 cases, detailed below, is radical innovation realized.

#### ***Cluster 4: Organizing for radical innovation through two-step institutional work***

In contrast to Cluster 3 cases, managers within Martin and Cicero developed a more comprehensive strategy of institutional work around radical innovation, working closely with professionals. Martin and Cicero experienced a multiplicity of institutional elements that, similarly to Cluster 3 cases, stimulated tolerance towards practice and boundary revision. The preservation of professionalism across clinical departments was countered by institutional forces oriented to the preservation of hospitals' status as 'clinical leaders' and 'first movers' in the field. The multiplicity of institutional demands was such that doctors were inclined to seek opportunities of innovation within the boundaries of their professionalism.

*I came here five years ago and it was 'night and day', compared to my previous experiences. The mantra here is: you cannot be only a doctor, but also an innovator. So we need to prove that we have our own 'field' of action and that we constantly stay on its innovation frontier. (Cicero, Doctor)*

This strategy was organized in two steps: (i) initiatives that institutionalized new interests, norms and beliefs, allowing professionals to experiment with multidisciplinary working and standardized care; (ii) initiatives that reinforced institutionalized interests, norms and beliefs, orienting the professionals' agency towards ICP development. Hereafter, the Cicero case is presented in detail.

In the first step, executives did not enact any *political work*; e.g. linking ICP development to special status or resources for professionals, after failed attempts in the past.

*We experimented with new rules and top-down directives. We received adverse feedback from clinical departments lamenting that this was an unexpected change of pace and that existing clinical outcomes before our intervention were of high quality, and that therefore the change of pace was unwelcome. (Cicero, Executive Manager)*

Rather, quality managers liaised with early adopters (i.e. doctors with reported interest in integrated care) to stimulate early experiments with integrated care services. Early adopting doctors took the lead, performing *technical work* to introduce institutionalized norms and beliefs related to interdisciplinary and standardized care. These doctors exploited earlier efforts at Cicero to *design normative networks* that facilitated interaction and mutual influence among elite doctors, whose offices were all located in the same physical area. This had engendered a habit amongst these doctors to informally share stories about each other's work and patients. Professionals could also count on 'Cicero Learning', an organizationally mandated training framework through which doctors regularly interacted. Cicero Learning became salient for the first step of institutional work. Doctors constantly interacted with Cicero Learning through sending requests to organize seminars or courses that an advisory board reviewed. They competed considerably for places as 'trainers' in Cicero Learning because "*these credits count*" (Cicero, Doctor) for organizational prestige and career progression. Furthermore, Cicero Learning had a reputation that attracted doctors to participate as attendees. So, early adopters liaised with managers to take over responsibility for popular training programs where they performed *educating work*; i.e. informing and training fellow professionals about skills and knowledge needed to integrate professional boundaries and practices. They also engaged in *theorizing work* to explain through cause-effect chains why new boundary and practice arrangements benefited professional work; and in *mimicry* to associate new institutionalized interests and beliefs with international best practices. Early adopters thus inspired their colleagues with new ideas "*to stay at the frontier of innovation*" (Cicero, Doctor) and made integrated care consistent with the cognitive framework into which professionals were socialized. Executives had a hands-off approach throughout this first stage, supporting the infrastructure and programs within which the early

adopters performed their technical and cultural work. Quality managers provided administrative support necessary for the continued engagement of doctors.

*We have programs aimed at encouraging excellence in medicine through international experiences. We've had a few doctors promoting evidence-based medicine. They sent very clear messages that, if we wanted to be amongst the best, most innovative organizations, we had to embrace this change. (Cicero, Executive Manager)*

These efforts promoted multidisciplinary working across pre-existing professional boundaries and practice, but did not explicitly demand service redesign. Clinical departments were free to experiment with integrated configurations and process reengineering. According to professionals' individual preferences, this experimentation stage resulted in the proliferation of alternative ways of working. Most were incremental service innovations; e.g. creating research and evaluation groups, establishing regular multidisciplinary meetings to discuss patient cases, revising internal protocols to clarify connections with other clinical departments. More rarely, professional groups introduced radical service redesign.

*Departments were very receptive. All clinical departments have been doing something to manage processes, improve quality and collaborate with others. They played with the new concepts a lot and most departments began showing in Cicero Learning their own experiences, constantly remarking how they came from cross-departmental collaborations and were academically robust. (Cicero, Quality Manager)*

The proliferation of experiments across clinical departments signaled increasing erosion of boundaries and the institutionalization of interests, norms and beliefs related to multidisciplinary care. This experimental stage was “*long and slow*” (Cicero, Executive Manager). As noted by an executive manager in Martin:

*It is like planting season. It takes time and luck. You plant your seeds, and pray to God that the soil is fertile and that no flood or storm will ruin the harvest. And you wait. You patiently wait for the seeds to grow because you cannot really force the soil to produce results immediately. (Martin, Executive Manager)*

In Cicero, managers had “*prepared the soil*” over the years and could use structures (such as Cicero Learning) created and developed over decades of constant revision. In this respect, “*time was a gentleman*” (Cicero, Quality Manager) because it had allowed professionals to develop their own understanding of and response to integrated care.



On the downside, the experimental stage had produced very different results, since professional groups pursued their individual interests and understandings of integrated care. Only few radical innovations were pursued and the coalition felt the need to more systematically organize service innovation.

*We couldn't find one single product that all groups produced. ICPs seemed a particularly smooth way to organize work but they were rare and were so different from each other. We wanted to channel these efforts in a more systematic way. (Cicero, Quality Manager)*

Consequently, a second and faster step of institutional work was enacted to consolidate the nascent interests, norms and beliefs, and orient the professionals toward service redesign in a more sustained way. Three forms of institutional work were enacted in 12 months. First, quality managers, executive managers and early adopters formed a stable coalition focused on organizing service redesign. This required making the coalition visible to clinical departments, and putting all its members in condition to perform other forms of institutional work. Quality managers, earlier legitimized as go-to-guys for administrative support during multidisciplinary experiments, led this effort, working to *construct a new identity* for the coalition; e.g. Group for Multidisciplinary Care (GMC); which was then *defined and vested* through ad-hoc rule systems defining the boundaries of its membership and conferring status and resources to its members. Quality managers outlined key objectives, responsibilities and operations of GMC, then amended by professionals and ratified by executive managers.

*Executive managers were sympathetic to our involvement. Their support was crucial because we have good eyes and ears, but our voice is weak, so we need to sing in a chorus. We interacted with doctors clearly interested in ICPs and pulled them into a stable group, agreeing to meet every month specifically for ICP development. We officially promoted our existence to clinical departments through Cicero Learning and emails, saying: "The Group for Multidisciplinary Care can support you: it has these people and resources, can give this support, you can interact with us in this way" (Cicero, Quality Manager)*

The definition and vestment of the new group primed *enabling work*. Quality managers were equipped with a dedicated budget and work allocation to become the first interface with clinical departments. Quality managers shaped their engagement in ways that did not crowd out the engagement of the professionals.

*Doctors are the ones asking me to help; otherwise they can do it on their own. We had one simple rule: tell us who produces what and show us the results. We don't want to give the idea we are intruding, but also that we would do all the background work. There is a fine line between being important and being indispensable. (Cicero, Quality Manager)*

Second, the coalition reiterated their earlier effort towards *theorizing* and *educating* work. The adoption of ICP formats was regarded as the most valued experience emerging from earlier experiments. Within Cicero Learning, quality managers and professionals co-produced training programs promoting ICP experiences. The increasing pool of experiences promoted the idea that ICPs did not endanger core jurisdictions, but actually improved clinical effectiveness. *Theorizing* and *educating* were pervasive as quality managers and early adopters used newsletters, intranets and notice-boards “*to create a vibe*” (Cicero, Quality Manager) about ICP development.

Third, the coalition *constructed new identities and normative structures* through the institution of “Care Centers” that included all specialties involved in the management of specific patient groups. Executive managers outlined the general mission and scope of Care Centers, while early adopting doctors and quality managers developed their clinical and organizational specificities, which executive managers ratified and to which they assigned specific resources. Care Centers represented an intensive form of *political work, reshaping [doctors'] identity* (starting from their job description), the horizontal and vertical relationship between doctors, and access to resources. Executives also *constructed new identities* for the quality managers, embedded in the Care Centers as ICP coordinators. They were assigned the formal responsibility to supervise the redesign of clinical services through ICP methodologies. Executives *vested the new identity* with resources; e.g., adding assistants and financial resources, and reducing requests for other tasks. Care Centers were encompassed in a matrix-like organization in which doctors had to balance the interests of their own clinical departments (autonomously manage resources/expertise for multiple pathologies) with that of their Care Center (share the management of resources/expertise with

peers for a specific patient group). Care Centers were supported by *mimicry* work: i.e. the (expanding) coalition promoted their development and maintenance consistently with international benchmarks, and through *theorizing and educating* work, positive results were promoted as soon as they emerged. Appealing to the institutionalized interests oriented towards innovation leadership, doctors quickly attached themselves to existing Care Centers or created new ones.

*In the early stages, we spent time warming up clinical departments, after which many multi-disciplinary ideas emerged. The time seemed ripe to formalize all this work. We developed Care Centers, which are organizational constructs aggregating units from a patient-centered perspective. They began with Cancer Centers, which is an area where medicine is already multidisciplinary and then we created others across the organization. (Cicero, Doctor)*

Care Centers became a natural “basket” for ICP development. The coalition of actors built upon professionals’ increasing attachment to Care Centers and their interest in innovation leadership to *emphasize new normative associations*; i.e. emphasizing Care Centers require radical innovation and ICPs represented appropriate ways to pursue this, and perform *policing work*, i.e., introduce auditing/monitoring mechanisms performed by doctors to ensure compliance with evidence-based guidelines in Care Centers.

*Many doctors were already familiar with ICPs so we didn’t need to tell them they were important. We needed to make them happen here and now. It was made clear that it was pointless to have Care Centers without service changes. We produced recommendations on “translating the mission of patient-centered services into practice”; while Care Center Coordinators managed requests about ICPs - de facto putting ICPs at the top of their priorities. (Cicero, Quality Manager)*

To guarantee the sustainability of Care Centers, middle managers enacted the *embedding work* needed to preserve professionals’ continued engagement and a constant flow of resources for new work and personnel. They followed many “*small little things*” (Cicero, Quality Manager) that professionals were less attuned to managing; e.g., schedules, amending communication systems, following developments of research proposals for additional grants.

## **Discussion**

In the face of potential professional resistance, the study reveals four strategies used by managers to organize their expert workforce for radical innovation. Three were relatively

ineffective; i.e. allow full autonomy to professionals (Cluster 1); use centralized project management (Cluster 2); enact persuasive institutional work through extrinsic motivators (Cluster 3). The fourth was however effective; i.e. a cross-level and two-step strategy of institutional work (Cluster 4 cases). Henceforth, the four strategies are compared, following which a theoretical model of institutional work for radical innovation in professional organizations is outlined (Table 3).

<<Table 3 about here>>

Discussion will focus upon Cluster 3 and 4 cases, to compare institutional work strategies for successful realization of radical innovation. In both Clusters the stabilizing effects of institutional influences around professionalism were softened by new institutionalized interests, norms and values, around clinical innovation leadership and first-mover advantage. The multiplicity, heterogeneity and/or ambiguity of interests, norms and values stimulated a tolerance for boundary/practice revisions. These micro-institutional affordances were perceived by executives, quality managers, and reforming doctors as an opportunity for radical innovation. Executives and quality managers in Cluster 3 cases performed ‘political work’ (Lawrence and Suddaby, 2006), using incentives to make professionals prioritize the radical innovation. In Raffi and Dragan, however, this achieved sub-optimal outcomes because the new regulations and incentives intruded upon professionals’ jurisdiction. Quality managers’ hands-off approach to project management added ambiguity to their request for radical innovation. Professionals were engaged by (but not in) the political work, did not understand managers’ motives for change, and were unprepared for integrated care, so their response was to ‘shut down’ their early tolerance and protect established boundaries and practices. Professional groups that adopted ICP-based methodologies did so in ways that legitimized only incremental innovation, or even reaffirmed the status quo. The political work enacted by executives and quality managers created ambiguity around adoption of ICP

methods. So, professional groups used ICP methods as the end point to legitimize decisions that had already been made locally. Overall, the institutional work in Cluster 3 decoupled managers from doctors, since the former developed new regulations that pushed for ICPs without following up their implementation in practice; while the latter had exclusive jurisdiction regarding interpretation of the new regulations without having shaped their content. In essence, executive and quality managers attempted to channel professional responses toward an established (and ultimately exogenous) ICP standard. In doing so, these cases had worse outcomes than Cluster 2 cases. In Cluster 2, the lack of cultural and technical work was such that the radical innovation was not at the top of professional priorities. However, quality managers' practical support stimulated professionals to, at least, experiment with new boundaries and practices. Furthermore, Cluster 3 cases also achieved worse outcomes than Cluster 1 cases because the professionals' rejection of new regulations and incentives created tension with managers.

In contrast, two-step institutional work within Cluster 4 cases proved effective (see Figure 1). In Cluster 4, institutionalized interests, norms and beliefs of professionalism mingled with interests to gain first mover advantage, and through innovation leadership to advance organizational and individual prestige. This multiplicity and heterogeneity of institutionalized interests generated micro-institutional affordances that stimulated more tolerance for ICP-related experiments.

In the first step within Cluster 4, with the support of quality managers, early adopting doctors led technical/cultural work to increase attachment of professional peers to integrated care; executives led political work to create a favorable regulative and structural context for local experiments. With more diluted boundaries, the second step of institutional work consolidated the notion that ICP methods should inform radical service redesigns. Executives and quality managers developed coalitions with doctors that exerted hierarchical and

professional authority over the latter's peers. Thus, institutional work was not directed by executives and quality managers towards professionals, but by a cross-level coalition of 'reformers' towards 'defenders' in clinical departments. This institutional work was internally coherent because executives, quality managers and 'reforming' professionals operated a division of labor according to their interests and influence. So, doctors controlled the technical and cultural work that related to their expert knowledge about clinical effectiveness and risk; executives controlled the political work that related to their control of resources; quality managers mediated the two interests, supporting each form of institutional work with their technical knowledge and intermediate position. The coalition timed its political work so it occurred after the establishment of the normative/cognitive foundations for change, and avoided conflict between institutionalized interests, norms and beliefs. The experiments in Cluster 4 were then different from those in Cluster 2. With the latter, no institutional work challenged normative and cultural pillars rewarding professional autonomy and protected jurisdiction. So, quality managers' clerical work generated numerous service redesigns, but very few were radical innovations. In contrast, within Cluster 4, ICP methods gradually revised normative and cultural pillars, and institutional work of 'reformers' meant radical practice and boundary revisions were consolidated technically, culturally and regulatively.

The two-step approach was crucial to organize professionals for radical innovation. The initial technical/cultural work prepared the ground by emphasizing existing norms/beliefs about innovation leadership and professional prestige. Executives and quality managers worked institutionally to emphasize multiplicity of institutional demands (Van Dijk et al., 2011), reaching a point where professionals perceived the need to find ways to balance these. Professionals were allowed to 'inhabit' (Hallett and Ventresca, 2006) the new institutionalized arrangements, experiment with alternative ways of working and reflect upon

whether eroded boundaries challenged their core jurisdiction. Only when doctors became attached to multidisciplinary arrangements as a device to achieve innovation leadership, prestige and clinical effectiveness did the time become ripe for political work. This second stage of political work was characterized by: (i) a different type of political work that funneled the professionals' wide-ranging experiments towards ICP development, and (ii) political work that consolidated ICP development and linked it with service redesign. While in the previous stage, the technical/cultural work operated in continuity with the past, using the same infrastructures (e.g., Cicero Learning) and nested institutional work within pre-existing institutional pillars; now it was possible to develop new structures (e.g., Care Centers at Cicero) and regulations that established status and resources for those pursuing ICPs.

<<Figure 1 about here>>

### **Theoretical implications**

Figure 1 summarizes the conceptual model of institutional work enacted in the professional organizations to support radical innovation. Institutional work overcame reluctance of powerful professionals to operate in a collaborative environment; e.g. share decision-making. This reveals a scenario – relevant and yet underestimated in more ‘traditional’ firms – in which managers cannot really grant autonomy to professionals (who already self-regulate and control their operations), and cannot fully rely on incentives since these may not align with existing practice. The cases reveal that innovation was informed by more profound transformation in institutionalized interests, values and beliefs that have consolidated over the years. Attempts to grant “additional” autonomy or incentives without a proper revision of these institutional pillars are likely to produce inconsistent results. Building upon this general finding, the study provides three specific insights to extant literature on radical innovation.

First, the institutional work perspective details the nature of defenders' resistance to radical innovation. Most models of change emphasize how the first action for ‘reformers’ is

to ‘unfreeze’ (Lewin, 1951) the organization from the status quo. Regulations, social norms, culture and cognitive frameworks are highlighted as relevant contingencies that make an organization unwilling or incapable of advancing radical innovation (Buchanan et al., 2005; Paton and McCalman, 2008). Institutional theory suggests that these represent the basis of legitimacy, coercion and compliance that inhibit the ‘free’ agency of embedded actors, such as managers and professionals (Scott, 2001). The institutional work perspective adds a further insight; i.e. it shows how embedded actors do not just comply with the institutional pressures, but actively work to maintain the status quo. Our study shows how ‘defenders’ do not resist the radical change per se (e.g., several professionals were indeed positive that integrated care was a worthwhile idea), but the implications that the change would have on institutionalized interests (e.g., changes to reimbursement mechanisms), norms (e.g., changes in jurisdictions and autonomy) and values (e.g., changes to effectiveness and risks around care). Hence, the ‘institutional work’ perspective can enumerate the tactics through which ‘defenders’ resist innovation, by “unpacking” actions that are oriented at towards reinforcement of institutionalized norms and cognitive frameworks (i.e., technical work), local attachment to these institutional pillars (i.e., cultural work), and production of incentive systems and rules that reward certain behaviors over others (i.e., political work). The present study thus shows how the ‘struggle’ between ‘reformers’ and ‘defenders’ around radical innovation is framed by established institutional pillars and may generate new ones.

Second, executives, middle managers and professionals had key distinctive roles during the two-step institutional work. Extant research highlights radical innovation is more likely to succeed when cross-level ‘dominant coalitions’ are involved (Damanpour, 1991; Kotter, 1999). The present study extends this by highlighting how the coalition might work internally to pursue institutional work. Professionals’ jurisdictions remained fundamentally inaccessible to executive and middle managers, so only professionals act as ‘institutional carriers’ of



normative and cultural/cognitive pillars. Furthermore, early adopters played a key role in the institutional work strategy as they had the expert knowledge and professional background to make sense of how diverse institutional elements integrate, following which they could enact technical and cultural work (Lawrence and Suddaby, 2006) to shape new cognitive/normative foundations of change (Scott, 2001). This was effective when professionals could keep managers at a distance in the earlier stages of institutional work, so that boundary and practice revisions could be negotiated between peers. By doing so, professionals did not feel their institutionalized interests were threatened by managerial interests. Also, professionals' technical and cultural work was particularly effective when encompassed within organizational structures such as Cicero Learning to which all professionals were already attached and in which educating and theorizing (Lawrence and Suddaby, 2006) was tolerated.

In contrast, executives were involved in organizing radical innovation mostly through ratifying behaviors and outcomes (necessary for professionals to increase their organizational status) and structuring rules and regulations (necessary to obtain resources and facilities). In doing so, they engaged primarily with political forms of institutional work. Executives were unwilling to act without professional support, either leaving the responsibility for radical innovation entirely to professionals; or limiting themselves to co-creating structures for the co-option of local interests (e.g., Care Centers). They linked with high-status professionals to legitimize their involvement, create coherence in the face of institutional multiplicity (Van Dijk et al., 2011), and engage with the cognitive/normative assumptions held by professionals within specific clinical departments. Attempts to enact political work without professional links failed (cf. Raffi and Dragan). So, executive managers' role, although crucial, depends on three contingencies: (i) their consciousness that micro-institutional affordances reduce risk that frontline professionals resent their intrusion; (ii) possibility to liaise with clearly

identifiable local professional groups; (iii) support of middle managers as lynchpins to engage with professionals at the frontline (Currie and Procter, 2005).

Middle managers' proximity to executives and professionals enabled them to mediate different interests. Hence, although they did not control any of the 'institutional carriers' affecting the regulative, normative and cognitive/cultural pillars, they were still able to enact an institutional role in creating and maintaining new institutional arrangements. At Cicero and Martin, middle managers liaised with professionals to support technical/cultural work (e.g., preparing and sustaining professionals' educating and theorizing in Cicero Learning) and with executive managers to support political work (e.g. outlining Care Center regulations and carrying out administrative work, thereby increasing professional engagement with potential service reconfiguration) (Lawrence and Suddaby, 2006).

Third, earlier research has shown how radical innovation in professional organizations, requires fundamental changes in ways of working and overarching institutional arrangements. These changes require structured tactics of 'small wins' that expand the pool of supporters across the organization (Kotter, 1999; Reay et al., 2006). The present study emphasizes how 'small wins' were carried out primarily in terms of technical and cultural work; i.e. small wins did not just promote ICP methodology, but drove changes in deeper rules of legitimacy and compliance within the organization, hence were carried out primarily by the 'early adopting' professionals along with middle managers. The model induced from the present study has a fundamental difference with other models of change, for which promoting 'small wins' serve the purpose of diffusing the radical innovation across the system; i.e. increase the number of adopters and supporters. In the present study, the first step of institutional work does not promote the radical innovation per se since other professionals could be fundamentally and legitimately indifferent to it. Rather, the 'small win' needed to celebrate the ICP methodology underpinning radical innovation, so that other professional groups

could use that example to develop radical innovation in their own disciplinary areas. Thus, ‘small wins’ in the study are aimed at changing the normative and cognitive bases of legitimacy in the organization; i.e. validating applications of ICP methods to redesign services to enhance effectiveness of care and reduce clinical risk. This institutional perspective also explains why professionals (and particularly high-status doctors) led the small wins while middle managers took the back-seat. As noted earlier, only professionals controlled the institutional carriers connected to normative and cognitive pillars, hence their role in the coalition is central from the very beginning. The ‘small wins’ matured into a broader institutionalization of change only when the presence of professionals in the coalition was significant enough to drive change in normative and cognitive pillars in the organization. In Cicero, particularly, the second step originated when there was little doubt that clinical departments were engaged with integrated care and needed a “*final stroke*” (Cicero, Quality Manager). At this point, the political work enacted by executives (with middle managers and professionals on the back-seat) generated radical innovation. Political work consolidated nascent boundaries and practices; while the second stage of technical/cultural work oriented professionals more systematically towards ICP methods as the approach for radical innovation. This two-step institutional work strategy was then effective because it associated radical innovation with incremental institutional change processes through which managers emphasized an institutional dilemma (how to balance self-regulation and effectiveness with innovation leadership and professional prestige) and gave professionals time to make sense of how to integrate diverse institutional elements associated with professional organization and radical innovation. Radical innovation thus ceased to be incommensurate with established professional interests, norms and beliefs, and professionals spontaneously engaged with it.

### **Managerial Implications**

This study investigated how managers organized a professionalized workforce for radical innovation. Our study highlighted how executive and middle managers drive radical innovation through developing cross-level coalitions and enacting two stages of institutional work. In driving radical innovation, managers drew upon the knowledge and influence of reforming professionals to change the vested interests, norms and logics that protected the status quo.

Our study provides more ‘traditional’ firms with relevant insights into how an expert workforce could be organized for radical innovation through examining experts’ autonomy from a different perspective. Previous research commonly asked ‘how much’ autonomy should be granted to experts, and highlighted how it enhances their creativity. In contrast, our study shows what happens when autonomy is established in experts’ life, and cannot be ‘taken back’. In such situations, managers need to organize radical innovation by adapting to experts’ autonomy and finding ways to challenge established interests, norms and values. Our study thus provides four key incantations to managers on radical innovation.

First, our study highlights how the strength of institutionalized arrangements and professionals’ institutional work constrained managerial actions to such an extent that executives would reinforce, rather than challenge, the status quo; and middle managers would refrain from any action when professionals perceive them as intrusive.

Second, our study shows when managers mediate professional organization to advance radical innovation, particularly how managerial action is dependent upon their recognition of ‘micro-institutional affordances’ (Van Dijk et al., 2011).

Third, our study details the managerial actions to influence frontline professionals towards radical innovation. While centralizing decision-making through political work had considerable limits in realizing radical innovation, enacting gradual and collaborative

institutional work proved successful, when complemented by professional experimentation with new practices and boundaries.

Fourth, our study emphasizes the importance of an institutional perspective in innovation management studies. Institutionalized arrangements are commonly seen to prevent radical boundary and practice revision. Our study highlights how managers can reconfigure regulative, normative and cognitive institutional pillars to enable professionals' enactment of radical innovation. Arguably, these findings can be transferred to any context where institutional arrangements and workforce autonomy inhibit managers' organization of radical innovations. Professionalization dynamics have become increasingly relevant in contemporary firms where professionals, such as R&D employees, scientists, designers, software developers, claim autonomy and self-regulation derived from the use of their unique knowledge and skills (Muzio et al., 2013), and use it to influence the nature and extent of radical innovation.

In summary, our study suggests that managers can support the introduction of radical innovation by first, developing stable alliances with local professional groups to provide cognitive/normative foundations of radical innovation; second, allowing professionals to inhabit nascent institutional arrangements and to make sense of how these fit with their prevailing interests, norms and beliefs; third, co-developing structures/rules that encourage professionals to pursue radical innovation; and finally performing maintenance work that preserves professionals' attachment to new institutions. Our study also emphasizes the need to develop systems that identify micro-institutional affordances. Middle managers appear particularly well positioned to do this, as they are close to frontline professionals, and so can relate to multiple, heterogeneous and ambiguous institutional interests held by different actors (Van Dijk et al., 2011).

### **Limitations & Future Research**

The study calls for more research linking institutional constructs with radical innovation and presents the opportunity to explore how micro-institutional affordances emerge (Van Dijk et al., 2011). Furthermore, previous research highlights that managers' social position and other individual characteristics explain decisions made about their pursuit of strategic initiatives (Lockett et al., 2014; Mantere, 2008). Further research might assess in greater detail when and why managers tend to select strategies of institutional work to support radical innovation.

Finally, we recognize limitations of our study to highlight a need for future research. First, our study relied methodologically on comparative case study to contrast different approaches to radical innovation. Comparative case studies are positioned in a grey area between the in-depth analysis of single case studies and the statistical generalization of surveys (Miles and Huberman, 1994). Second, the results stem from a hospital setting. While the authors believe the analysis is generalizable to other contexts characterized by expert knowledge, further research to examine whether the analysis can be applied to other settings is encouraged.

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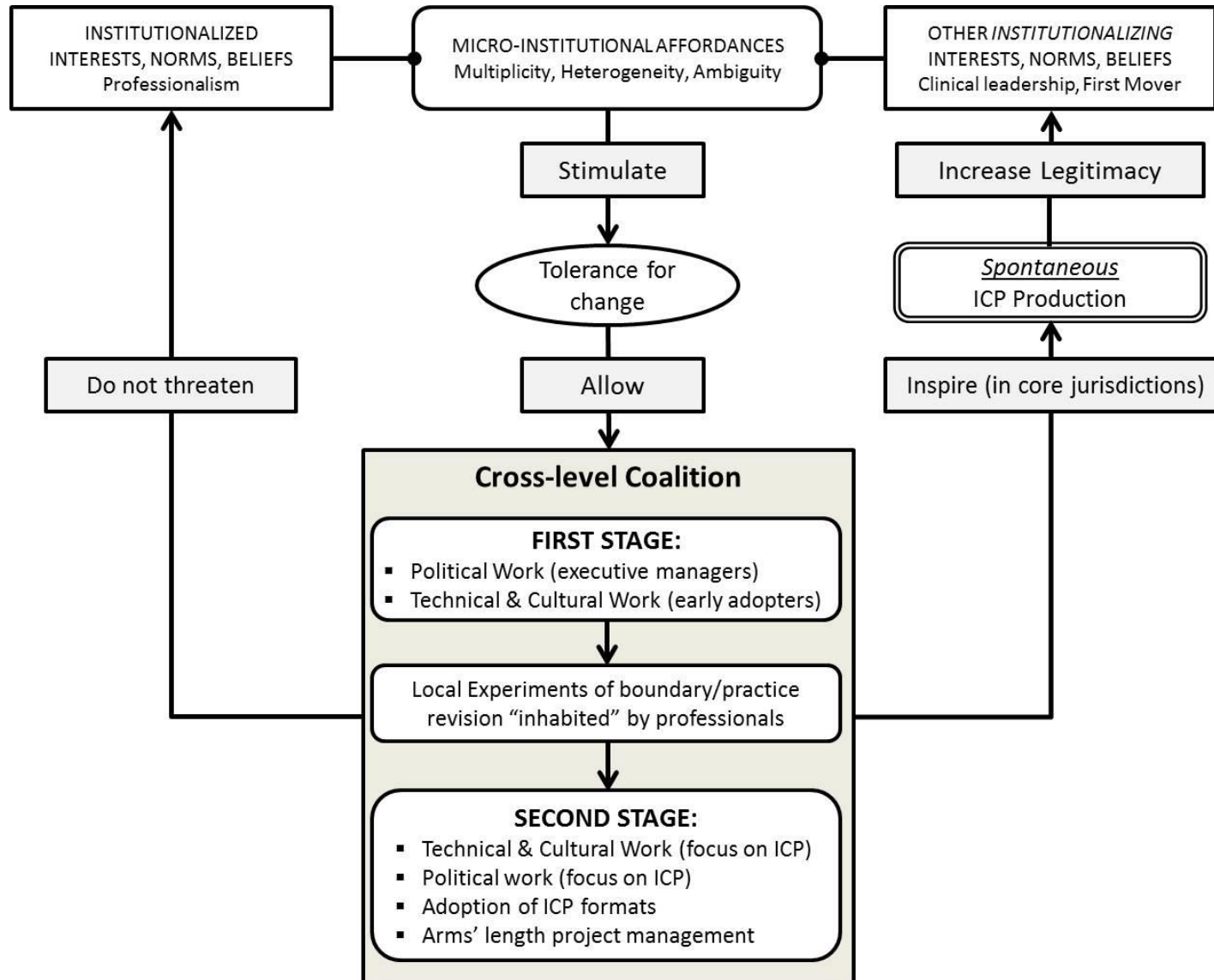


Figure 1: Model of cross-level and two-stage strategy of institutional work for radical innovation

**Table 1: Forms of Institutional Work**

<b>Institutional work</b>	<b>Definition (Adapted from Lawrence and Suddaby, 2006)</b>	<b>Examples from our dataset</b>
<b>Political Work</b>	Creating, maintaining, disrupting rules, property rights and structures that define access to resources and status	
<i>Constructing</i>	Defining relationships between actors and the field in which they operate	Regulation formalizing ICP groups in organizational structure (Raffi) or Care Centers (Cicero)
<i>Identities</i>		
<i>Defining</i>	Constructing rule systems that confer status or identity, define boundaries of membership or create status hierarchies within an organization	Membership rules to gain status in new ICP group (Raffi) or Care Center (Cicero)
<i>Vesting</i>	Creating of rule structures that confer property rights	Rights to ad-hoc financial resources to sustain ICP group (Raffi) or Care Center (Cicero)
<i>Enabling work</i>	Creating rules that facilitate, supplement and support institutions, such as the creation of authorizing agents or diverting resources	Definition of Group for Multidisciplinary Care to support Care Centers for ICP development (Cicero)
<i>Policing</i>	Ensuring compliance through enforcement, auditing and monitoring	Monitoring mechanisms by elite doctors to ensure compliance with ICP development (Cicero).
<b>Technical Work</b>	Creating, maintaining or disrupting beliefs, values and social norms that define appropriate behaviors	
<i>Changing normative associations</i>	Re-making the connections between sets of practices and normative the moral and cultural foundations for those practices	Linking Care Centers with radical innovation around ICPs (Cicero)
<i>Changing normative networks</i>	Constructing connections through which practices become normatively sanctioned and reviewed by relevant peer group	Panel of elite doctors responsible for ensuring compliance with ICP development (Cicero)
<i>Theorizing</i>	The development and specification of abstract categories and the elaboration of chains of cause and effect	Linking Cicero Learning programmes with frameworks for integrated care (Cicero)
<b>Cultural Work</b>	Institutional work aimed at creating, maintaining or disrupting actors' embeddedness to existing institutions	
<i>Mimicry</i>	Associating new practices with existing sets of taken-for-granted practices, technologies and rules in order to ease adoption	Development and promotion of Care Centers and Cicero Learning from international benchmarks (Cicero)
<i>Educating</i>	The educating of actors in skills and knowledge necessary to support the new institution	Using Cicero Learning programmes to educate elite doctors on ICP development and outcomes
<i>Embedding and routinizing</i>	Actively infusing the normative foundations of an institution into the participants' day to day routines and organizational practices	Middle managers performing administrative work to facilitate doctors' engagement and constant flow of resources (Cicero)
<i>Valorizing (undermining) moral foundations</i>	(Dis)associating new practice, rule or technology to (from) its moral foundation as (in)appropriate within a specific cultural context	'Old guard' linking ICPs with negative expectations about standardized care (Green)

**Table 2: Study Informants and Data**

<b>Hospital Type</b>	<b>Beds* Employees*</b>	<b>Cluster</b>	<b>Informants</b>	<b>Archival Data</b>
<b>PHASE 1 INTERVIEWS</b>				
CICERO <i>Teaching</i>	800 beds 2000 emp.	4	(7) Medical Director, R&D Director, Care Centre Assistant Manager, 4 Doctors	Care Centre Strategy, Care Centre Meetings Minutes, 2 ICP Documents, 3 ICP Presentations
MARTIN <i>Generalist</i>	1000 beds 2300 emp.	4	(8) Chief Executive, Medical Director, 2 Quality Unit Managers, 4 Doctors	1 ICP Document, 1 ICP Presentation, Workshop Minutes, 2 Internal Strategy Documents
GREEN <i>Teaching</i>	1800 beds 4500 emp.	2	(4) Quality Unit Manager, 2 Quality Unit Assistants, 1 Doctor	1 ICP ppt Presentation, 2 Scientific Articles, 1 Internal Strategy Document
SLOAN <i>Specialist</i>	250 beds 900 emp.	2	(9) Medical Director, 2 Quality Unit Managers, 1 ICP coordinator, 5 Doctors	6 ICP Documents, 1 ICP Presentation, 1 Internal Strategy Document
TAILOR <i>Teaching</i>	500 beds 1200 emp.	1	(7) 1 Quality Unit Manager, 2 Quality Unit Assistants, 4 Doctors	1 Internal Strategy Document, 1 Survey, 2 Student Theses,
WINTER <i>Teaching</i>	800 beds 2000 emp.	1	(4) 2 Quality Unit Managers, 2 Doctors	2 Internal Strategy Documents
<b>PHASE 2 INTERVIEWS</b>				
RAFFI <i>Generalist</i>	2000 beds 5000 emp.	3	(3) Medical Director, Quality Unit Manager, 1 Doctor	1 ICP Document, 1 Internal Strategy Document
DRAGAN <i>Generalist</i>	1500 beds 4000 emp.	3	(3) Medical Director, Quality Unit Manager, Quality Unit Assistant	1 ICP Document, 1 ICP Presentation, 1 ICP Poster, 1 Internal Strategy Document
WOODY <i>Teaching</i>	800 beds 2000 emp.	2	(3) 1 Quality Unit Manager, 2 Doctors	2 Internal Strategy Documents, 1 Budget Document
MANDEL <i>Generalist</i>	1400 beds 4000 emp.	2	(3) Medical Director, Quality Unit Manager, Quality Unit Assistant	7 ICP Documents, 3 ICP Posters, 1 Scientific Article, 1 Internal Strategy Document
SMITH <i>Generalist</i>	500 beds 1500 emp.	1	(4) Quality Unit Manager, 2 Quality Unit Assistants, 1 Doctor	1 ICP Document, 2 ICP ppt Presentations, Workshop Minutes, 1 Internal Strategy Document
BLACK <i>Specialist</i>	800 beds 2000 emp.	1	(5) 1 Quality Unit Manager, 4 Doctors	2 Internal Strategy Documents

\* Numbers have been approximated to avoid identification

**Table 3: Comparison of Findings**

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Cases	Winter, Taylor, Woody, Black	Sloan, Smith, Green, Mandel	Raffi, Dragan	Cicero, Martin
Institutional Environment and Micro-Institutional Affordances	Interests, norms, beliefs on: <ul style="list-style-type: none"> <li>Self-regulation, protected jurisdictions, effectiveness (institutionalized)</li> </ul>	Interests, norms, beliefs on: <ul style="list-style-type: none"> <li>Self-regulation, protected jurisdictions, effectiveness (institutionalized)</li> <li><i>Early adopting role (Sloan: rising); boundary experimentation (Mandel, Smith: local; Green: ambiguity)</i></li> </ul>	Interests, norms, beliefs on: <ul style="list-style-type: none"> <li>Self-regulation, protected jurisdictions, effectiveness (institutionalized)</li> <li><i>Efficiency, boundary dilution, control (local)</i></li> </ul>	Interests, norms, beliefs on: <ul style="list-style-type: none"> <li>Self-regulation, protected jurisdictions, effectiveness (institutionalized)</li> <li><i>Innovation leadership, prestige (Cicero &amp; Martin: rising)</i></li> </ul>
Professionals' Agency	<ul style="list-style-type: none"> <li>Perform technical and cultural work to defend status quo, particularly <i>undermining moral foundations</i> of radical redesigns; and <i>valorizing</i> status quo</li> <li>Local spontaneity outside of managers' view</li> </ul>	<ul style="list-style-type: none"> <li>Because of greater tolerance to change, their institutional work against service redesign is weak.</li> <li>They experiment with ICP projects with managers, and often promote their local successes</li> <li>Local experiments do not change established arrangements</li> </ul>	<ul style="list-style-type: none"> <li>Local spontaneity outside of managers' view</li> <li>Rejected requests to <i>theorize</i> and <i>educate</i> ICPs</li> <li>Reinforced <i>Undermining moral foundations</i> of ICP development; <i>valorizing</i> status quo</li> </ul>	<ul style="list-style-type: none"> <li>Stage 1: Early adopters <i>educate, theorize, mimic</i> boundary dilution</li> <li>Groups experiment with practices to make sense of new institutions</li> <li>Stage 2: Groups <i>educate, theorize, mimic</i> ICPs</li> <li>Stage 2: High-status doctors <i>emphasize normative associations</i> and radical <i>policy</i> innovation</li> </ul>
Executive Managers' Agency	<ul style="list-style-type: none"> <li>Avoid any institutional work to avoid conflicts with professionals</li> <li>Occasionally, pursued narratives of stability and risk that reinforced professionals' technical/cultural work</li> <li>Inhibit middle managers' involvement</li> </ul>	<ul style="list-style-type: none"> <li>Ratification of project work</li> <li>Prevent middle managers from involvement to avoid conflicts with and between professional groups</li> <li>No institutional work establishing new rules or incentives</li> </ul>	<ul style="list-style-type: none"> <li>Political work (<i>constructing, defining, vesting identities</i>) to link status and resources to ICPs</li> </ul>	<ul style="list-style-type: none"> <li>Stage 1: <i>Construct, define &amp; vest identities</i> to Quality Dept.</li> <li>Stage 2: <i>Construct, define &amp; vest identities</i> to Coalition + <i>Construct normative networks &amp; identities</i> to ICP groups</li> </ul>
Middle Managers' Agency	<ul style="list-style-type: none"> <li>Collect/synthesize information up/downwards, manifesting their interest in change</li> <li>Wedded to traditional roles when aware of executive managers' and professionals' resistance</li> </ul>	<ul style="list-style-type: none"> <li>Collect/synthesize information upwards and downwards</li> <li>Side-by-side work in projects</li> <li>No institutional work</li> </ul>	<ul style="list-style-type: none"> <li>Collect/synthesize information up/downwards</li> <li>Support executive managers</li> <li>Wedded to traditional roles</li> </ul>	<ul style="list-style-type: none"> <li>Collect/synthesize information up/downwards</li> <li>Stage 1: Support early adopters &amp; executive managers</li> <li>Stage 2: <i>Embed &amp; routinize</i> new networks and identities</li> </ul>
Outcomes	<ul style="list-style-type: none"> <li>No or isolated ICPs</li> <li>No radical service redesign</li> <li>Stable relationship between management and professionals</li> </ul>	<ul style="list-style-type: none"> <li>High number of ICPs, but few informing radical service redesigns</li> <li>Experiments in marginal areas</li> <li>Heavy workload for managers</li> <li>Sensitivity to external jolts</li> </ul>	<ul style="list-style-type: none"> <li>No or isolated ICPs</li> <li>No radical service redesign</li> <li>Temporary tensions between management and professionals</li> </ul>	<ul style="list-style-type: none"> <li>High number of ICPs, linked with radical service redesign</li> <li>Feasible workload for managers</li> <li>Radical innovation institutionalized in new structures</li> </ul>